IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF TENNESSEE
NASHVILLE DIVISION

JUANA VILLEGAS,	)	
	)	
Plaintiff,	)	
	)	
v.	)	**No. 3:09-0219**
	)	
THE METROPOLITAN GOVERNMENT OF DAVIDSON COUNTY/NASHVILLE -- DAVIDSON COUNTY SHERIFF'S OFFICE, et al.,	)	**Judge Haynes**
	)	
	)	**JURY DEMAND**
	)	
	)	
Defendant.	)	

WRITTEN TESTIMONY OF JILL DeBONA, M.D.
PURSUANT TO LR 39.01(c)(6)

Direct Testimony of Dr. Jill DeBona[1]

[Pursuant to LR 39.01(c)(6), counsel will provide introduction of Dr. DeBona, including her background and qualifications, as set forth in her expert reports.]

Testimony By Jill DeBona

1. I agreed to evaluate Ms. Villegas because I am one of a few clinical psychiatrists in Nashville with my professional credentials who is proficient in the Spanish language, which is Ms. Villegas' native language. I make my living treating patients, not as an expert witness for lawyers. In fact, I have never testified in Court as an expert before, so I was a bit hesitant to agree to do so here. Nevertheless, given my unique qualifications, I agreed to evaluate Ms. Villegas and provide a report at my normal hourly rates for evaluating patients.

2. In evaluating Ms. Villegas, I spent over 6 hours of psychiatric interviews with her over the course of three sessions. I also interviewed her husband, her boss at McDonalds which is her place of employment, a friend and neighbor named Maggie Hernandez, and Ms. Villegas' sister, Mercedes.

3. Based on my evaluation of Ms. Villegas, and as corroborated by the interviews of family, friends, and her supervisor, as well as the psychiatric intake evaluation by Nurse Cardona and psychological testing by Dr. Boero, I arrived at my medical opinion as to damages sustained by Ms. Villegas.

4. Ms. Villegas suffers with chronic Post Traumatic Stress Disorder, Major Depressive Disorder and Phobia that was caused by her shackling and treatment by the Davidson County Sheriff's Office approximately three years ago.

5. In making that diagnosis of Ms. Villegas, I have relied on my actual experience and training in diagnosing and treating patients. I estimate that I have diagnosed and/or treated at least 100 cases of Post Traumatic Stress Disorder or PTSD since medical school. My patients have experienced various traumatic events such as molestation and childhood sexual abuse, rape, combat, and motor vehicle accidents.

6. PTSD is an anxiety disorder that develops after an individual is exposed to an extreme stressor that involves the threat of death or extreme injury. The Diagnostic and Statistical Manual, which is the clinical instrument used to formulate diagnoses in Psychiatry, defines PTSD according to a specific stressor as well as the symptoms that develop after the individual is exposed to the stressor.

[Criterion A]

7. The Diagnostic and Statistical Manual states that PTSD can develop after an individual "experienced, witnessed or was confronted with an event that involved actual or threatened

[1] Bracketed portions will not be read by the witness.

death or serious injury, or a threat to the physical integrity of self or others." " [T]he person's response involved intense fear, helplessness or horror."

8. Ms. Villegas experienced the threat that her baby might die or be seriously injured. In the first experience, she was in labor, with her ankles shackled together while being transported to the hospital. Unable to open her legs to allow delivery, she feared that her baby would die inside of her body. Her response included intense fear and helplessness.

9. Additionally, Ms. Villegas experienced thirty-six hours of shackling with a heavy leg iron. This shackling was degrading and humiliating. Ms. Villegas' self concept is that she is a mother, a worker, a wife, not a criminal. This humiliation at the hands of the Sheriff's Office has caused a break in trust, in the institutions and people that are supposed to protect her. Her core sense of self, as a human being with value, has been shaken. Her sense of security has been shattered. Her response again was one of helplessness.

10. Finally, upon discharge from the hospital, Ms. Villegas was sent to jail without a breast pump and separated from her two-day-old nursing infant. Without a breast pump to safely express her milk, Ms. Villegas was subjected to significant pain. Her response again was one of intense fear and helplessness.

11. Thus, we see that Ms. Villegas experienced stressors that met the threshold criteria for PTSD. However, it may be helpful to place these stressors in perspective.

12. On the night of July 5, while she was housed at the detention center, Ms. Villegas reports that her "water broke." She was taken to the nursing station and an ambulance was called. When she went into the ambulance, the sheriff put shackles on her wrists and ankles. In my interviews with Ms. Villegas, she described the event as follows:

> "Tell me how you were shacked."
> *My wrists were shackled together and my ankles were shackled together.*
> "Your ankles were shackled together?"
> *Yes.*
> I asked, " Were you having contractions?"
> *Yes.*
> "What was this like for you?"
> *Very painful. I wasn't able to move my legs. I was so scared. My baby was trying to be born and I couldn't open my legs. I was afraid for my baby.*
> I asked, "What were you afraid of?"
> *Afraid that he might not make it.*
> "You had fears that your baby might die?"
> *Yes. I was very scared. He was trying to be born.*
> *How could he come out if I couldn't open my legs? I couldn't do anything. Couldn't help him.*

13. While in the ambulance, Ms. Villegas had to face the terror that her baby might die. She did not realize that an officer was in the ambulance. She believed that there was no one to remove the shackles. Just as her labor had been short with the births of her two previous children, she believed that this labor would also be short. Yet, during this labor, she could not move or open her legs. Unable to move or open her legs, she feared that her son would not be able to be delivered. She had to sit with the terror that her baby might die inside of her body. According to Ms. Villegas, there was nothing that she could do to help him. She felt helpless.

14. Ms. Villegas experienced a profound stressor, the threat of death to her unborn child. The threat of death to a family member is an example of the type of extreme stressor that can lead to the development of Post Traumatic Stress Disorder.

15. Additionally, Ms. Villegas's response of terror and helplessness is often seen in trauma victims who develop Post Traumatic Stress Disorder. Once she arrived at Metro General Hospital, Ms. Villegas felt profound relief. She hoped that the shackles would be removed. If the shackles were removed and she could open her legs, she believed that her baby would be safe. In fact, the shackles were removed while she was being transferred to the bed in her hospital room. Yet, once she was in her hospital bed, her right wrist and left leg were shackled to the bed:

> I noted, "This must have been difficult. You had been hopeful that the shackles would be removed. '
> *It was awful. Disappointing. Humiliating. I am no criminal. How could I give birth if I was shackled?*
> I asked, "Describe the way that you were shackled."
> *My right arm was shackled to the bed. My left leg was shackled to the bottom of the bed.*
> "Were these the same type of shackles that were used in the police car and ambulance?"
> *The one on my wrist was the same. But the one on my leg was much bigger. It was heavy.*
> "Tell me about your baby's birth."
> *I knew that the baby was coming. I asked to used the phone. Wanted to call my husband and tell him. They said no. I was so upset by all of this. Thankfully, there was a nice policeman who removed the shackles before I gave birth. I think that the doctor had ordered the shackles off.*

16. Ms. Villegas' son, Gael, was born on July 6. According to Ms. Villegas, she was able to deliver her baby without the shackles. However, when the shift changed, the new officer again shackled her left ankle to the bed. For the remainder of July 6 and July 7, she describes her experience:

> *When I was in bed, my left ankle was always shackled. The worst part is that they shackled my ankles together when I got out of bed to use the bathroom. I couldn't walk. The nurses asked the police officer to remove the*

shackles so that I could walk. It was a female police officer. She wouldn't remove them. She wouldn't even remove them so that I could use the bathroom, bathe or change clothes. The nurses said that I needed to walk. I couldn't walk. Had to stay in bed with my left leg shackled to the bed. I couldn't move around. Had to nurse the baby in one position. Hurt my back and leg. I now have such problems with my back.

17. Ms. Villegas' subsequent response to being shackled is consistent with the scientific literature. The literature on the psychological effects of restraints primarily refers to the use of physical restraints in the hospital. A 2007 study found that the use of physical restraints in hospitalized patients resulted in a higher incidence of PTSD. Physical restraints ranged from the use of mittens on a patient's hands to the more restrictive practice of tying the patient's limbs to the bed. According to the medical literature, hospitalized patients who wore mittens or who were tied to the hospital bed had higher rates of PTSD than unrestrained patients. Ms. Villegas was not only restrained but she was shackled with a leg iron.

18. After discharge from the hospital, Ms. Villegas was transported back to jail. This time, her wrists were shackled together. She describes her experience during her return stay at the jail:

That night, my milk came in. So painful. The nurses tried to give me a breast pump when I was leaving the hospital. The police officer said no. My breasts were very painful. In the jail cell, the other woman helped me to massage my breasts to expel the milk. I was in so much pain. I couldn't sleep. I asked for a Tylenol. They gave me a multivitamin.
I asked, "A multivitamin for pain?"
Yes.
"Did you ask for a breast pump when you were back in jail and experiencing so much pain?"
No.
"Why not?"
It never would have occurred to me to ask. They said no at the hospital.
"Yet, you asked for something for pain."
Because the nurses said they were giving me a medication for pain that I could take if I needed. If my pain got bad. But when I asked, the officers didn't give me anything for pain.

19. It is clear that Ms. Villegas needed a breast pump to relieve the painful engorgement that she was experiencing. Yet, it didn't occur to her once back at the jail that she could ask for a breast pump and that her request might be granted. She had already endured profound experiences of helplessness in the custody of the sheriff's department. Now she was back in jail and suffering from a painful medical condition. Instead of asking for the help that a breast pump might offer, she remained silent, passive. Her coping mechanisms had been taxed. She felt defeated. Helpless.

20. After enduring so much, it seems that Ms. Villegas had given up. Such surrender despite the experience of pain is reminiscent of the studies by van der Kolk. In his work, dogs in cages were exposed to electric shocks from which escape was impossible. When they were then given the shocks and also allowed a possible escape, they did not exit. They stayed in their cages and endured the pain of the shocks. They had learned that escape was impossible despite the evidence to the contrary. They simply gave up and suffered.

21. In effect, they had learned that they were helpless to save themselves. This state is termed 'learned helplessness.' After enduring so much, it seems that Ms. Villegas had also given up. Instead of requesting available help from the officers, a nurse or a doctor, she remained silent and endured the pain. She, too, had developed a state of learned helplessness. According to Maier and Seligman (1984), this state of learned helplessness resembles the symptoms of defeat, withdrawal, and lack of motivation seen in individuals with Post Traumatic Stress Disorder.

[Criterion B]

22. The Diagnostic and Statistical Manual states that, after exposure to a traumatic event, it is "persistently reexperienced in one or more of the following ways:

    1) recurrent and intrusive recollections of the event, including thoughts, images and perceptions

    2) recurrent and distressing dreams of the event

    3) acting or feeling as if the traumatic event were recurring (reliving the experience, illusions, hallucinations and dissociative flashbacks)

    4) intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event

    5) physiological reactivity at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event

23. Ms. Villegas' shackling occurred before and after childbirth, a time of great vulnerability for a woman. She relives her trauma via recurrent and distressing recollections. These distressing recollections are not invited. They are like unwelcome guests who won't go away. At times, the intrusive recollections take the form of a flashback. She relives the shackling again as if it were occurring in present time. Reliving these past events, it is as if she is being retraumatized over and over again.

24. In the weeks, months and years that have followed, Ms. Villegas has continued to think about the events that occurred during her labor and shackling. In fact, she states that she thinks about the labor and shackling every day. When she thinks about these events, she experiences physical distress:

My whole body shakes. Hands shake more. Heart races.
I asked, "Any other physical sensations? Muscle tension?"
Yes .And my skin gets hot and cold--shiver.

25. She also experiences emotional distress when she thinks about the events that occurred:

I feel so sad. I cry a lot. Feel afraid. Afraid that it could happen again.

26. Certain things trigger her memory of the events:

I asked, "Are there things that remind you of the events of 2008?"
Yes. Seeing my son. I cry when I see him. It is so hard. I see him and it reminds me of what happened.
I observed, "That must be very difficult for you. You see your son every day so you are constantly reminded."
It's very hard. I look at him and I am sad. I always remember what happened. I try to hide my sadness from him and the other children. I go to my room and cry, especially at night. Cry for a long time.

27. According to Ms. Villegas, the police also trigger her memory of being shackled:

I asked, " What is it like for you when you see the police?"
I shake all over. My heart races. Chills. My hands tremble. I feel so nervous and afraid. Especially if I drive. I am afraid that I will be stopped and the same thing will happen again even though I have a license now.
" How do you manage these thoughts and feelings?"
I don't drive much by myself anymore. I don't go out much now. Don't visit with friends or go shopping. I don't like to leave the house. I don't want to see the police.

28. There are times when she experiences flashbacks while she is at home, at work or with a friend. During the flashback, Ms. Villegas seems distracted. When at home, her children have to repeatedly wave their hands in front of her get her attention. To her family, it seems that, at these times, she is not 'be present.'

29. According to Ms. Villegas's husband:

She doesn't pay attention when we are chatting. She is distracted. Thinking. Seems preoccupied. When she has her head in her hands, I know that she is remembering what happened. Sometimes, she will forget what she is doing. She will be cooking and will sit down or go upstairs. Forget that food is on the stove.
I asked, "Did anything like this happen in the past?"
No. Never.

30. According to Ms. Hernandez:

> She relives what happens--can see it in her eyes. Her voice. Teary. Cries a lot.

31. Mr. William Parker, Ms. Villegas's boss, adds:

> I see her daydreaming in the office. I see her thinking. She's down. Sad. I can tell that something traumatic has happened to her.

32. We therefore see that Ms. Villegas re-experiences the traumatic events of being shackled in not one but in four different ways. She experiences 1) distressing recollections of the events, 2) dissociative flashbacks, 3) physical and 4) emotional distress when she is exposed to a trigger that reminds her of the traumatic event.

[Criterion C]

33. The Diagnostic and Statistical Manual describes the emotional numbing and avoidance symptoms that trauma victims experience. Because reexperiencing past trauma is so excruciating, trauma victims will change their behavior to avoid triggers. We see that Ms. Villegas avoids visiting with friends or chatting on the phone because she will have to talk about what happened. Since driving triggers memories, Ms. Villegas avoids driving by herself except when absolutely necessary. Seeing the police is particularly upsetting, so Ms. Villegas stays at home. This way, she can avoid any chance of seeing them even though she has a valid drivers license. She is no longer interested in family celebrations which were once very important to her.

34. In addition to the behavioral strategies to avoid the distress of painful recollections, trauma victims use psychological strategies, as well. Psychic numbing is such a strategy. It is employed to avoid the distress caused by reexperiencing. Trauma victims will essentially become 'emotionally numb'. It is as if they emotionally shut down. By shutting down, they don't have to feel upset or afraid. Yet, when they emotionally 'shut down', they also limit their capacity to feel pleasure or love. Marriages often fail as a result of this emotional shutdown.

35. Ms. Villegas demonstrates such emotional shut-down. Interest in sexual intimacy has markedly diminished and she no longer experiences contentment or joy. Distrustful now, she limits her engagement in social relationships. Hence, she feels alienated and disconnected.

36. The medical literature explains that symptoms of numbing/avoidance are thought to be highly predictive for the development of PTSD. In trauma victims, the numbing/avoidance symptoms occur less commonly than the 'reexperiencing' symptoms. According to one study, only 10-50% of trauma victims will experience emotional numbing/avoidance. In contrast, 60-80% will reexperience past events. Since the emotional numbing/avoidance symptoms occur less frequently, they are thought to be a critical determinant in the diagnosis

of PTSD. For example, in a study of survivors of the Oklahoma City bombing, only one third of exposed individuals met the numbing/avoidance criteria. Yet, greater than 90% of these individuals eventually developed Post Traumatic Stress Disorder.

37. The Diagnostic and Statistical Manual states that an individual experiences persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (not present before the trauma), as indicated by at least three of the recognized symptoms:

    i. efforts to avoid thoughts, feelings or conversations associated with the trauma

    ii. efforts to avoid activities, places or people that arouse recollections of the trauma

    iii. inability to recall an important aspect of the trauma

    iv. markedly diminished interest or participation in significant activities

    v. feeling of detachment or estrangement from others

    vi. restricted range of affect

    vii. sense of a foreshortened future

38. Experiencing five of these symptoms, Ms. Villegas clearly meets the criteria for the diagnosis of PTSD.

[Criterion D]

39. The Diagnostic and Statistical Manual states that an individual with PTSD experiences persistent symptoms of increased arousal (not present before the trauma), as indicated by two of the following:

    i. difficulty falling or staying asleep

    ii. irritability or outbursts of anger

    iii. difficulty concentrating

    iv. hypervigilance

    v. exaggerated startle response

40. Trauma victims experience symptoms of increased arousal. They can't sleep. They can't think. They can't concentrate. At times, they may be irritable or even aggressive. When someone unexpectedly appears or touches them, they have an exaggerated startle reflex.

When startled, they may jump or gasp. They are hypervigilant, on guard all of the time. This guardedness readies them so that another trauma doesn't sneak up on them by surprise.

41. Ms. Villegas experiences these symptoms of increased arousal. She describes chronic sleep difficulties that developed after the events of 2008. Ms. Villegas's neighbor and close friend, Maggie Hernandez, was present when Ms. Villegas returned from jail.

> I said to Ms. Hernandez, "You saw Ms. Villegas the night that she returned.
> *Yes, my husband and I were there.*
> I asked, "What happened?"
> *She crashed. Fell down on the floor. Cried and held onto her oldest son. She was a mess.*
> I asked, "Did you see her again?"
> *Yes. Every day. She wasn't sleeping. Having nightmares. She cried all day. She wouldn't eat. I tried to get her to eat.*

42. Ms. Villegas' husband, echoes Ms. Hernandez:

> *When she came home, she couldn't stop crying. Our neighbor, Maggie, was there to help her. She cried during the day. She wasn't able to sleep. She couldn't sleep much for two to three weeks.*

43. Ms. Villegas reports that her return home was difficult. She wasn't able to sleep. She had nightmares. She cried throughout the day. After two to three weeks, Ms. Villegas reports that she began to sleep better. The nightmares subsided.

> *I do sleep better. But not like before. I still cry at bedtime three times per week and can't fall asleep. I am tired when I wake up. Fatigued during the day. My tailbone hurts. And my leg is stiff. If I move when I sleep, I am in a lot of pain. This started right after I was shackled to the bed for so long.*
> I observed, " Your sleep was very disrupted after the incident. It is better but you still have difficulty with sleep."
> *Yes.*

44. Disrupted sleep is common after an individual experiences a psychological trauma. Often, the intensity of sleep disruption decreases a few weeks after the trauma. Yet many, like Ms. Villegas, experience a persistent disruption in sleep. In fact, difficulty with falling or staying asleep is one of the criteria for the diagnosis of Post Traumatic Stress Disorder in trauma exposed individuals.

45. Additionally, she notes that her concentration is impaired. She is easily distracted. During conversations with her husband, she is often inattentive and unable to follow the conversation. He also states that "Juana is more irritable now. She is short-tempered with the

kids. Yells at them. In the past, she had patience, never yelled." Ms. Villegas is now easily startled. She stated: "If my children tap my shoulder, I jump. Feel nervous." According to her husband, "Juana is preoccupied, worried now. If we touch her arm, she jolts. She didn't act like this before." The Diagnostic and Statistical Manual states that only two symptoms of hyperarousal are required to meet the criteria for the diagnosis of PTSD. Ms. Villegas actually experiences four symptoms of hyperarousal.

[Criterion E]

46. According to the Diagnostic and Statistical Manual, the "duration of the disturbance is more than one month." Ms. Villegas has been experiencing these symptoms for the past several years. According to Ms. Villegas, when I evaluated her in August and September of 2010, "I feel the same as I did two years ago, after it all happened. I always remember. Nothing is better except the nightmares."

47. Maggie Hernandez, a friend and neighbor, said the same thing when I interviewed her. She said: "Two years have passed. She relives it every day. Juana will never get over this. Took a toll on her. She is not what she was before."

[Criterion F]

48. The Diagnostic and Statistical Manual states that "the disturbance causes significant distress or impairment in social, occupational or other important areas of function." In Ms. Villegas's case, we see that the psychological effects of the shackling are most evident in her social and family relationships. Socially, Ms. Villegas has withdrawn from most friendships. She no longer visits friends nor chats on the telephone. She feels disconnected from people. Additionally, her marriage has suffered. Ms. Villegas no longer participates in the activities that she and her husband so enjoyed such as dancing, parties, and chatting together. Her decreased interest in sexual intimacy has put a strain on the marriage. In addition to the marital strain, general family life has been significantly affected by the events of 2008. Ms. Villegas doesn't like to leave her home. Since she no longer likes to drive alone, and chores, kids' activities, and outings are limited.

49. Often, victims of trauma may experience disturbances of mood. Depression is the most common mood disturbance experienced by individuals exposed to significant psychological trauma. Depressed individuals may describe their mood as sad, discouraged or 'down in the dumps'. The depressed mood is commonly accompanied by a loss of pleasure. Individuals may report feeling less interested in hobbies or 'not caring anymore'. Activities that once brought them pleasure are no longer considered enjoyable. They may also experience changes in sleep, energy and ability to concentrate. Feelings of worthlessness and guilt may occur.

50. Ms. Villegas reports such a change in her mood state and behavior. She noted:

> *I don't have happiness. Feel sad. Cry.*
> I asked, " How often do you have the feelings of sadness?"

Every day. Feel sad every day.
"At times is this sadness better or worse?"
Sad every day. It is worse 2-3 days out of the week. I spend the entire day crying on those days.
"When did the sadness start?"
Right after everything happened. 2008.
"Has your sadness improved over the past two years?"
No. It is the same.
"Did you experience this sadness before the events of 2008?"
I was sad after my mother died. It was never anything like this. I got over that sadness. I will never forget this. I remember every day.
….
"Have you noticed a change in your energy level?"
Yes. Tired a lot. Have to sit. Don't know why.

51. Ms. Villegas' husband also notices that his wife's mood state has changed and that she no longer enjoys activities that they used to share together. He explained:

> *She doesn't have happiness anymore. We have lost that person. She doesn't like to go to parties. No dancing. We used to love to dance at the fiestas. That's how we met. Doesn't watch movies with me anymore.*

52. Ms. Villegas' neighbor, Maggie Hernandez, also describes a profound change in Ms. Villegas's mood and behavior:

> *I never saw Juana cry until after what happened. She cries a lot now. Seldom laughs. She is not what she was before. Took a toll on her. Sometimes it is hard to tell how bad she is hurting because she is so private. It's sad. Two years have passed. Juana will never get over this. As a woman, she feels as if she were raped. Feels violated.*

53. Sadly, seeing her son, Gael, reminds her of the events surrounding his birth. Most likely, this relationship has been profoundly affected by the events of 2008. When Ms. Villegas experiences a flashback, she is no longer 'present' to meet her family's needs. Routine and family life suffer due to the events of 2008. In this way, we can see the potential for the intergenerational transmission of psychological trauma. Children born to traumatized mothers are at greater risk for problematic attachments to those damaged mothers. In this way, their development can go significantly 'off the rails'. The quality of the attachment relationship is the best indicator in childhood for future personality development in adulthood.

[Summary of Diagnosis]

54. It is clear that Ms. Villegas meets Diagnostic and Statistical Manual criteria for the Diagnosis of PTSD, chronic. But PTSD is not the only diagnosis associated with exposure to traumatic

events. Major depression, phobias, alcohol and drug abuse are often experienced. In fact, depression is thought to occur in approximately 50% of people who have PTSD.

55. In my evaluation, I also found that Ms. Villegas suffers with depression. She is sad every day. This sadness intensifies approximately three days per week. During these times, she will stay at home and cry throughout the day. She no longer derives pleasure from dancing, shopping, visiting with friends or attending family gatherings. Her sleep is disrupted and she is often awakened throughout the night due to chronic back pain sustained after the shackling. She has difficulty concentrating. On most days, she feels excessively fatigued. This depressive experience affects her relationships with her husband, children and friends. Although she is able to work, it requires all of her energy to perform her duties. When she returns from work, she is emotionally and physically drained. She sits or retreats to her room. According to her husband, "she goes to work but it takes everything out of her." Prior to 2008, she was able to manage the responsibilities of work and family. Now, it is as if she has to summon all of her limited energy and concentration to get through a day of work.

56. According to the Diagnostic and Statistical Manual, Ms. Villegas meets diagnostic criteria for Major Depressive Disorder that developed after the traumatic events of 2008. Additionally, she meets criteria for Specific Phobia, Situational Type. Since her shackling was associated with a driving incident, Ms. Villegas is now phobic of driving. These problems are addition to Ms. Villegas' PTSD diagnosis.

[Biological Systems]

57. Many biological systems are altered in individuals with PTSD. In my report, I describe the noradrenergic system, which regulates response to acute stress and trauma by releasing various stress hormones or emergency hormones, epinephrine and norepinephrine. The release of these hormones allows the person to respond adaptively to the stress or threat. For example, most people have experienced the 'fight or flight' response at some time. Initially, certain levels of stress can heighten awareness and increase reflexes. Yet, prolonged elevation of the levels of stress hormones can lead to chronic autonomic hyperactivity. The PTSD sufferer experiences this autonomic hyperactivity in the form of intrusive recollections and hyperarousal.

58. I also discuss in my report the hypothalamic-pituitary-adrenal (HPA) axis, which is another biological system that is altered in PTSD. The HPA axis also manages the body's response to stress. Additionally, it regulates digestion, immunity, emotions and sexuality.

59. In response to stress, the adrenal gland releases cortisol. Cortisol may be understood as an "anti-stress" hormone. Research has shown low levels of cortisol and an elevated urinary norepinephrinecortisol ratio in PTSD. Altered levels of cortisol have been linked to impaired immunity and diabetes.

60. The endogenous opioid system is also altered in PTSD. This is the system that produces endorphins, the chemicals associated with the 'runner's high.' Animal experiments have shown that endogenous opiates are released when an animal is exposed to prolonged or

repeated trauma. Van der Kolk suggests that, similarly, people who are exposed to prolonged or repetitive trauma release endogenous opiates. These opiates produce the analgesia and psychic numbing seen in PTSD.

61. There are significant changes in brain function and anatomy in people with PTSD. The part of the brain called the hippocampus is critical for memory function. The hippocampus has been found to have reduced volume in individuals with PTSD. This abnormality has been associated with the dissociation symptoms, difficulties with memory and information processing seen in PTSD sufferers.

62. As with other systems of our body, the brain has built in 'checks and balances' to maintain stability. For example, an area of the brain called the ventromedial prefrontal cortex suppresses the amygdala response. In PTSD, the ability of the prefrontal cortex to restrain the amygdala is impaired. In effect, the system of checks and balances is broken.

[Causation]

63. In my opinion, there is no question that Ms. Villegas' PTSD and other problems were caused by the Sheriff's Department shackling her. Many individuals are exposed to traumatic experiences during their lifetimes. According to the landmark National Comorbidity Survey (NCS), approximately 50% of women and 60% of men had experienced at least one traumatic event. Yet, not all exposed people develop PTSD. Approximately 25% of individuals exposed to a severe trauma go on to develop the full PTSD syndrome. The severity of the stressor has been identified as the primary risk factor associated with the development of PTSD. Other risk factors include previous exposure to a traumatic event, early separation from parents, female gender, pre-existing anxiety or depression, personality disorder and family history of mental illness.

64. In Ms. Villegas's case, we see that prior to her shackling she had minimal risk factors for the development of PTSD. In the past, she had never experienced depression or an anxiety disorder. There is no family history of mental illness. Raised by both her mother and father, her early family life is described as "happy". There are no indications of a personality disorder such as mood instability, impulsivity or relationship difficulties. Ms. Villegas has never had a history of alcohol or drug abuse. Additionally, there is no family history of mental illness. We see that, other than being female, Ms. Villegas doesn't have significant risk factors for the development of PTSD.

65. We are left with the extreme stressor itself that has caused the development of PTSD. That is, the harrowing experiences of being shackled six different times during her final days of pregnancy, labor and the post-partum period, and the painful events surrounding her final stay in jail. These extreme events caused the development of PTSD.

66. My evaluation also eliminated any other personality disorder, including anti-social personality disorder. Ms. Villegas has no history of such disorders and my evaluation confirmed that she fits none of the criteria for such disorders such as a history of abuse and problems sustaining relationships.

67. I understand that the Sheriff's Office has nonetheless questioned my conclusion that the shackling and treatment of Ms. Villegas resulted in Ms. Villegas' PTSD. As I have explained, the results of my psychiatric evaluation establish that the trauma experienced by Ms. Villegas while shackled by the Sheriff's Office constitutes a stressor according to the Diagnostic and Statistical Manual. It is important to remember that, in addition to the actual trauma itself, we must consider what the trauma meant to the person. This is one explanation of why, when two persons experience a similar trauma, one may develop PTSD while the other does not. In Ms. Villegas' case, her sense of self was violated. As described by her neighbor Maggie Hernandez, it was as if Ms. Villegas was raped. In my practice, I have treated a number of sexual abuse and rape victims who required treatment for PTSD. In my experience, they usually are among those requiring the longest and most intense treatment.

[The following paragraphs in italics are only applicable if immigration status is permitted]

68. During my evaluation of Ms. Villegas, I also sought to eliminate any other cause of Ms. Villegas' PTSD. I understand that the Sheriff's Office contends that Ms. Villegas' immigration status may be a cause of worry or anxiousness for her. As a factual matter, in speaking with Ms. Villegas, she has many options to remain in this country with her family, so I disagree as a factual matter that it could be a cause. Similarly, from a medical point of view, we can distinguish any worry or anxiousness about immigration status from Ms. Villegas' diagnosis of PTSD. Just because there may be another event or circumstance that may cause anxiousness or worry, that does not minimize or otherwise explain away the cause of Ms. Villegas' PTSD. For example, someone may be anxious about speaking in public, but any trained mental health professional could decipher between the anxiousness a patient may be feeling because of an upcoming speaking engagement and the more serious psychological injuries caused by a past traumatic event.

69. There are numerous indications and supporting evidence that the shackling and treatment by the Sheriff's Office were indeed the cause of Ms. Villegas PTSD. For example, the flashbacks, nightmares and intrusive memories experienced by Ms. Villegas all relate to the trauma of being shackled. They do not relate to any other concern or worry she may have. Similarly, the sight of her son Gael is a trigger for Ms. Villegas. The fact that her other children do not serve as a trigger reinforces that it was indeed her treatment by the Sheriff's Office, in which she feared for the life of her son and was shackled. These are the stressors which caused the PTSD.

[Malingering]

70. When assessing PTSD in the face of litigation, Malingering must be considered. According to the Diagnostic and Statistical Manual, Malingering is "the intentional production of false or grossly exaggerated symptoms, motivated by external incentives…."

71. There are guidelines for the evaluation of Malingering. The guidelines address collateral data, information obtained from the individual, the clinician's interviewing style and consideration of other psychiatric diagnoses that the individual may have. Certain features differentiate genuine PTSD from Malingered PTSD. Individuals with genuine PTSD tend to minimize their symptoms, are reluctant to tell their trauma stories and avoid situations or places that resemble aspects of the trauma.

72. In contrast, Malingerers often overdramatize their symptoms. They are eager to call attention to themselves and their suffering. Their trauma stories are inconsistent. Often, there are contradictions. For example, they may fully enjoy recreational activities yet claim that they cannot work. In fact, they usually have a history of spotty employment, previous incapacitating work injuries and extensive absences. Interestingly, malingerers claim enduring and repetitive nightmares that reenact the trauma in the same way. In true PTSD, nightmares are usually pronounced right after the trauma and then fade. Rarely do they persist and recur in the same way. Malingerers often have antisocial traits. Such antisocial traits may include lying, bullying, theft and vandalism.

73. In Ms. Villegas's case, we see that none of the features of Malingering apply. She minimizes her symptoms. She is reluctant to share the details of her trauma story. She has only done so out of a feeling of duty when approached by third parties. Ms. Villegas demonstrated insight to the reasons for responding to press inquires:

> *It is hard for me to talk about what happened. Makes me sad. Yet, I will do so if it will prevent this from happening to another pregnant woman.*

74. She also demonstrated insight to her reasons for the lawsuit:

> *I really want to forget all of this. Yet, I filed the lawsuit to help other women.*

75. Malingering may also be discounted because over the years, Ms. Villegas' trauma story remains consistent. For example, Ms. Villegas presented symptoms of PTSD with the two other trained professionals who evaluated Ms. Villegas: Nurse Liz Cardona and Dr. Jorge Boero. Although these mental health professionals are not medical doctors and their evaluations were not as comprehensive as mine, they both arrived at similar conclusions and observed behavior and symptoms generally consistent with those that I uncovered.

76. In Dr. Boero's report summarizing his psychological testing of Ms. Villegas, he observed that Ms. Villegas cried profusely. He reported that Ms. Villegas no longer engages in the same day-to-day enjoyment of life and activities as she had prior to the shackling incident. Dr. Boero notes the physical pain experienced by Ms. Villegas. Admittedly, Dr. Boero did not engage in the same in-depth evaluation that I undertook nor is he a medically trained psychiatrist. I also believe that, as a male, he probably had less success in having Ms. Villegas truly open up. In my experience in diagnosing and treating PTSD sufferers, especially women who have been victimized by male authority figures, specialized training is necessary on part of the examiner. Many different approaches and angles must be explored.

77. We also see this arise in Nurse Cardona's evaluation, in which she was able to elicit some of the same information from Ms. Villegas uncovered during my evaluations. However, we also see that Ms. Cardona was not able to fully break through the defense mechanisms exhibited by PTSD victims such as Ms. Villegas. The fact that Ms. Villegas was reticent to open up to Mr. Boero and Nurse Cardona is also inconsistent with any claim that she is malingering. If she were exaggerating her injuries, she would have done so with these individuals as well as me.

78. Thus, in comparing the psychological testing by Dr. Boero and the intake assessment performed by Ms. Cardona, it is important to keep in mind the third criteria, Criterion C, of the Diagnostic and Statistical Manual. Criterion C describes the emotional numbing and avoidance symptoms that trauma victims experience. Accordingly, the challenge for any trained mental health professional when diagnosing someone that suffers from PTSD is to seek to draw out information from the subject in a variety of ways to overcome those defense mechanisms.

79. The numbing and avoidance reaction are exemplified by Ms. Villegas' deposition and certain medical records from a July 13, 2010 emergency department visit that I have reviewed. The deposition shows Ms. Villegas' reaction when confronted by an authority figure who is not a trained mental health professional. By avoiding a discussion of her mental health needs, Ms. Villegas exhibits the characteristic numbing and avoidance that we see in those suffering from chronic PTSD.

80. Similarly, when Ms. Villegas visited the emergency department for a wart on her foot, it is not surprising that she would not volunteer information about her psychological wellbeing. Of course, the records from that visit reflect no real effort to examine Ms. Villegas' psychological status, which is understandable since she presented for a wart on her foot. In my experience, if Ms. Villegas were truly malingering, then one would expect her to have volunteered information instead of seeking to suppress it.

81. Unlike either a deposition or a routine doctor visit, a trained clinical psychiatrist, especially one trained in psychotherapy, can attack the numbing and avoidance reaction in order to have the patient "open up" by creating a safe environment and exploring the patient from many different avenues. Given this medical reality, I would be surprised that any qualified mental health professional would seek to draw any conclusions based on the deposition or the medical records without an in-person evaluation as is the standard of care and accepted medical protocol.

82. Contrary to the Malingerer, Ms. Villegas does not enjoy leisure activities and, instead, focuses her limited energy on fulfilling her work responsibilities. This has been confirmed by everyone I interviewed. Consistent with the natural course of PTSD, she describes disturbing nightmares that ceased two to three weeks after the trauma. In contrast to the Malingerer's antisocial traits, Ms. Villegas's boss describes her as "an amazing person and great employee". Ms. Hernandez states that "I couldn't ask for a better friend. I was sick last year

and she was there every minute of every day." Both Ms. Hernandez and Mr. Carachure describe her as "a loving mother who always puts others' needs ahead of her own."

[Treatment]

83. Based on my diagnosis, I have developed a proper medical course of treatment to help Ms. Villegas recover from the effects of her shackling by the Sheriff's Department during her labor. This treatment plan is based on my medical training and experience diagnosing and treatment over 100 cases of PTSD in my practice.

84. Ms. Villegas' symptoms include flashbacks, intrusive memories, depression, detachment, emotional numbing and avoidance, problems with intimacy, sleeplessness, and an exagerated startle response. Because of the biological effects of PTSD, she faces increased future health risks. And Ms. Villegas continues to experience physical pain from being shackled.

85. Because Ms. Villegas suffers with chronic PTSD along with Major Depressive Disorder (MDD) and Phobia, her treatment will be challenging. She will require more intensive therapy and of longer duration than if she experienced PTSD alone. The presence of avoidance and numbing symptoms will add to the burden of treatment. To offer Ms. Villegas the greatest opportunity for recovery, I would recommend an intensive treatment approach. Such an intensive treatment approach would include weekly psychotherapy sessions with a psychiatrist or a skilled mental health professional. I would recommend twice weekly sessions for the first 2 to 3 years and then 1 time a week therapy a minimum of 5 to 10 years. The cost of a psychotherapist in Nashville ranges from $150-$200 per hour.

86. Ms. Villegas also needs an evaluation and treatment by a psychiatrist. A psychiatrist may recommend a medication such as a Selective Serotonin Reuptake Inhibitor (SSRI) . An SSRI such as Lexapro may be helpful to improve Ms. Villegas' PTSD and MDD symptoms. The cost of Lexapro 30mg is approximately $403 per month. An SSRI typically takes approximately two weeks to start working. Therefore, an anti-anxiety medication such as Klonopin may be indicated to reduce anxiety symptoms until the SSRI starts working. A sleep medication such as Ambien CR may be of benefit to treat her chronic sleep disturbance. Ambien CR 12.5 mg runs about $258 per month. To offer Ms. Villegas the greatest chance of recovery, I would recommend psychiatric treatment for a minimum of 5-10 years. Initially, she will need to see the psychiatrist weekly. Once her medications are stabilized, the frequency of meetings can be reduced to one visit per month. The average cost of a psychiatric evaluation in Nashville is $250-$350 per hour. For follow-up appointments, the cost will range from $150-$200 per hour.

87. Although I have made recommendations for treatment for 5-10 years, Ms. Villegas will likely experience PTSD symptoms beyond this period of time. The research indicates that chronic PTSD requires long-term treatment. Perhaps the severity of Ms. Villegas' symptoms can diminish over time. However, she suffers with an illness whose symptoms will likely persist throughout her life. There will be times when symptoms flare and times when they remit. A trigger, such as the anniversary date of the shackling (also the birthday of her son), may cause PTSD symptoms to erupt. During these times, she may re-experience the trauma

via memories, intrusive thoughts and dreams. Dissociative flashbacks may recur in which Ms. Villegas re-experiences the trauma as if it is occurring in present time. During these flashbacks, she may fail to attend to those around her. To avoid the painful feelings and memories, she may again withdraw from family, friends and social activities. Depression may recur, further disabling her. During these exacerbations, she will again likely require intensive therapy and medication management.

88. Individuals with PTSD have an increased risk for suicide. Major Depressive Disorder also confers a greater risk. Therefore, Ms. Villegas has two illness that place her at greater risk for suicide. If she experiences a severe flare up of PTSD and/or MDD symptoms, she will need to be evaluated for suicidal ideation. This evaluation should include an assessment of suicidal thoughts, intent and potential plans. If suicidal ideation develops, she will likely require hospitalization. A short-term stay of 5-7 days at Parthenon Pavilion may help to diminish the PTSD symptoms and resolve the suicidal thoughts. The cost of 5-7 days at a private, local psychiatric inpatient hospital, like Parthenon Pavilion, would range from $4,250 to $5,750. However, if the PTSD symptoms and suicidal thoughts persist, she will need longerterm inpatient treatment. Options for longerterm hospitalization include Menninger's Clinic in Houston, Texas and Sierra Tucson Treatment Center in Tucson, Arizona. A thirty-day inpatient program at Menninger's costs approximately $50,000-$60,000. At Sierra Tucson, the cost ranges from $45,000-$50,000 for a thirty-day program. In the event that even longerterm care was needed, past 30 days, then the Austin Riggs Center in Stockbridge, Massachusetts would be an option with a monthly cost similar to Menninger's.

89. PTSD is an illness that affects marriages. In fact, many marriages fail due to the burden that the disorder places on the spouse. I have already discussed the affects of Ms. Villegas' ordeal on her husband and family. In her husband's words, "he has lost the person with happiness." Due to the strain that PTSD is placing on their marriage, Ms. Villegas (and her husband) would benefit from marital therapy. In my opinion, weekly therapy for a period of one year would be helpful. The cost of a marital therapist in Nashville ranges from $150 - $200 per hour.

90. PTSD and MDD can have profound effects on the children of PTSD sufferers. Individuals with PTSD may avoid places or events that trigger distressing memories. They may no longer go to the store, to the movies, the park or out to dinner. Children don't understand why their parent is sad and withdrawn, unwilling to play with them or engage in activities they previously enjoyed together. They may feel that the parent is no longer interested in them. Sadly, they may even feel that the parent no longer loves them. When the PTSD sufferer reexperiences the traumatic event via vivid daytime memories, intense emotions such as grief, guilt, fear or anger may follow. These intense emotions may be quite frightening to the children who witness them. Children may not understand what is happening and why. They may start to worry about their parent's well-being and ability to care for them.

91. One authority describes three typical ways that children respond to a parent's PTSD symptoms: 1) the 'over-identified' child who comes to experience many of the PTSD

symptoms of the traumatized parent, 2) the 'rescuer' who takes on many of the parental roles and responsibilities to compensate for the parent's difficulties, and 3) the isolated, "emotionally uninvolved child," who receives little emotional support, will likely have problems at school and in peer relationships. Often, this child will experience depression and anxiety. The impact of a parent's PTSD symptoms on a child is often described as secondary traumatization. Some researchers refer to this phenomenon as the intergenerational transmission of trauma.

92. For the past three years, Ms. Villegas' children have experienced their once vibrant mother as depressed, tearful and withdrawn. They have seen her when she "remembers" the trauma. At these times, they find her crying and holding her head in her hands. They see her when she dissociates and forgets that dinner is cooking on the stove. They experience their own invisibility when their mother is dissociating. As a result of her trauma induced dissociation, she is no longer cognitively and emotionally present. At those times, she looks, to her children, as vacant and far away. They wave their hands in front of her to gain her attention. They have lost their once happy and engaged mother. Perhaps most tragic is the fact that little Gael has never met this mother. He was born into trauma. He is a reminder of it. Instead of his birthday being a joyous celebration, it is an event that triggers his mother's PTSD symptoms. He bears the legacy, a victim of the intergenerational transmission of trauma.

93. The Villegas children are at risk. I would recommend family therapy to address family function as a whole. At this point, I would recommend therapy for a period of 2 years. However, this family may need periodic help and intervention for the next 10-15 years. Additionally, the children will need therapy. The younger children may benefit from play therapy. I would recommend weekly therapy for a period of two years. In my opinion, Gael needs close monitoring and may need treatment at various times throughout his childhood and adolescence. In Nashville, the cost of individual and family therapy is approximately $150-$200 per hour.

94. Ms. Villegas experiences chronic pain in her back and leg due to the extended time that she had to lay in the hospital bed, unable to change position.

> I asked, "What problems do you have with your back? "
> *I have a lot of pain. It's my tailbone where I had to lay in the bed. Hurts when I sit on the floor or a hard chair. Can't sit for long. Painful when I walk up the stairs. Especially bad when the weather is cold. Also hurts when I sleep. If I change position in bed, wakes me up. My leg also stiffens and is very painful.*
> "On a scale of 1-10, with 10 being severe, how bad is the pain?"
> *The pain is a 7 all the time. It is a 10 when it gets cold outside.*
> "When did this pain start"?
> *Right after I was tied to the bed for so long and couldn't move.*
> "You didn't have this pain before the events of July 3-July 9, 2008?"
> *No. I had no problems. Healthy.*
> I asked, "Have you seen a doctor to evaluate your pain?"

No. Don't have money for that. Our money is for the children.

95. Due to this chronic and severe back and leg pain, Ms. Villegas needs an evaluation by an orthopedist or neurosurgeon. The cost of a neurosurgery evaluation in Nashville is $2,000. She likely will need an MRI of her spine which cost ranges from $785-$1,346. Physical therapy may be indicated at a cost of $1,000 per month. If steroid injections are required, the cost is $5,000 per injection. If surgery were to be required, then the cost would be considerably higher.

96. Unfortunately, PTSD is often associated with chronic illnesses such as diabetes, arthritis and cardiovascular disease. Because Ms. Villegas is at increased risk for these diseases, she needs evaluation by an internal medicine doctor. These medical conditions must be assessed and treated throughout her life. An evaluation by an internist in Nashville costs approximately $200. Bloodwork, chest x ray and an EKG will be additional, between $300 and $450.

97. I have created a chart summarizing the treatments and costs that I have described. The chart does not take into account the expected future rise in medical expenses, which have been consistently rising at a rate higher than inflation. For this reason, I did not use a present value calculation because the figures themselves are likely understated as to the future cost of medical services.

98. In conclusion, it is my medical opinion that Ms. Villegas has suffered severe psychological injury as a result of her treatment by the Sheriff's Office. She has already experienced considerable suffering that she will continue to endure even with treatment. One can hope that if Ms. Villegas is able to secure the treatment she needs, her symptoms will lessen and her condition will improve. One day, perhaps, she will regain the level of function and enjoyment of life that she previously experienced. Hopefully, her children will be reintroduced to the mother they lost in 2008 and in Gael's case, has never met.